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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,259	02/06/2002	Dan E. Fischer	7678.582	3302

22913 7590 12/15/2004

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EXAMINER

BROWN, MICHAEL A

ART UNIT PAPER NUMBER

3764

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/072,259

Applicant(s)

FISCHER ET AL.

Examiner

Michael Brown

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 7-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Thornton.

Thornton discloses in figures 1a a method of treating a mouth guard to provide a cushion against a person's teeth comprising providing a mouth guard 12, that is u-shaped to fit the upper teeth, introducing a curable elastomeric material 20, into the mouth guard (fig. 1), placing the mouth guard in the user's mouth (to form the mouth guard with the elastomeric material therein), allowing the curable material to cure (by cross-linking, col. 3, lines 61-64 and col. 4, lines 4-5).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 7-8, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Thornton.

Wagner discloses in figures 1-6 a method for treating a protective mouth guard to more precisely fit and provide increased cushioning against a person's teeth, substantially as claimed. However, Wagner does not disclose the step of allowing the curable material to cross-link. Thornton teaches in figure 1a a method of forming a mouth guard having a mouth guard, a curable elastomeric polymer and allowing the curable material to cross-link during curing (col. 2, lines 61-64 and col. 4, lines 4-5). It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the curable elastomeric polymer as taught by Thornton could be substituted for the elastomeric polymer disclosed by Wagner because the cross-linking provides a stronger fit between the mouth guard and the elastomeric polymer. Wagner discloses injection molding which allows the elastomeric polymer to be injected as a melt bond (thus, allowing the elastomeric material to be introduced in a flowable state). The mouth guard disclosed by Wagner is custom fitted.

Claims 9-12, 14 rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Wolfenson.

Wolfenson teaches in figures 1-3 a u-shaped mouth guard 20 and a curable elastomeric polymer that includes polysiloxane (col. 4, lines 21). The mouth guard is more rigid than the elastomeric polymer (col. 4, lines 37-39). It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the elastomeric polymer as taught by Wolfenson could be substituted for the elastomeric polymer disclosed by Wagner and taught by Thornton because either elastomeric polymer can be heated and cured inside of the mouth guard. The mouth

guard should be more rigid in order to prevent the user from biting through the mouth guard.

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 15 above, and further in view of Wolfenson.

Wolfenson teaches in figures 1-3 a U-shaped mouth guard that further comprises forming the mouth guard of a stone cast (col. 1, lines 43-46). It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the mouth guard disclosed by Wagner could be fabricated from a cast as taught by Wolfenson in order to custom form the mouth guard to the user's teeth.

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 18 above, and further in view of Wolfenson, along with Grossberg.

Wolfenson teaches in figures 1-3 a u-shaped mouth guard, substantially as claimed, as set forth above. The mouth guard is formed from a cast. The polymer is a silicone base polymer. It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the mouth guard disclosed by Wagner could be formed from a cast and the elastomeric polymer could be a silicone base as taught by Wolfenson as set forth above. Grossberg teaches the mouth guard being a sheet.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Grossberg.

Grossberg teaches in figures 1-5 a method of forming a mouth guard using an adhesive (col. 2, lines 10-12) to attach an elastomeric polymer to a mouth guard. It would be obvious to one having ordinary skill in the art at the time that the invention was made that the elastomeric polymer disclosed by Wagner could be secured to the mouth guard by an adhesive as taught by Grossberg to prevent the polymer material from coming apart from the mouth guard.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Thornton, along with Grossberg.

Wagner discloses a method of forming a mouth guard, as set forth above. Thornton teaches a method of forming a mouth guard, as set forth above. Grossberg teaches a method of making a mouth guard using an adhesive to adhere the polymer material to the mouth guard. It would have been obvious to one having ordinary skill in the art at the time that the invention was made to incorporate the adhesive into the mouth guard for the reason set forth above.

Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Thornton, along with Wolfenson.

Wagner discloses a method of making a mouth guard and a kit. Thornton teaches a method of making a mouth guard. Wolfenson teaches a method of forming a mouth guard as set forth above. It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the method of making a mouth guard as disclosed by Wagner, as taught by Thornton and Wolfenson could be combined for the reason set forth above.

***Response to Arguments***

Applicant's arguments with respect to claims 1 and 7-23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

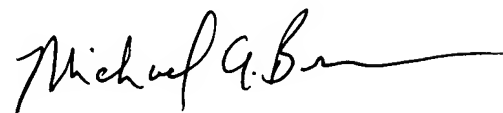
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Brown whose telephone number is 703-308-2682. The examiner can normally be reached on 5:30 am-4:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yu Justine can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Brown  
December 13, 2004

A handwritten signature in black ink, appearing to read "Michael A. Brown", with a long horizontal flourish extending to the right.

**MICHAEL A. BROWN  
PRIMARY EXAMINER**